

Work Order ID 60081



Page 1

June 24, 2010 9:08:42 AM

Item ID: D3278-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Spacer

Start Date: 6/24/10 Start Qty: 40.00



Cust Item ID:

Required Date: 6/28/10 Req'd Qty: 40.00

Customer:

Reference:

Run Start



Approvals: Process Plan: U

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3278 | Rev C |

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLQW CNC Waterjet

1-Cut as per Dwg D3278 Dwg Rev: C Prog Rev: C 2-
Debur if necessary

1310-6-24

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

8/10/06/29



1310-6-24

120

QC8- Inspect parts - second check

0.00



QC

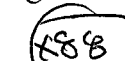
Memo

0.00

Quality Control

8/10/06/29

counter



25019

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|--|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 60081

June 24, 2010 9:08:42 AM



Page 2

Item ID: D3278-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Spacer

Start Date: 6/24/10 Start Qty: 40.00



Cust Item ID:

Required Date: 6/28/10 Req'd Qty: 40.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130 | Small Fab | 0.00 | | | | | | | |
| Small Fab | Memo | 0.00 | | | | | | | |
| Small Fab | 1-C'sink as per dwg D3278-2-Debur | | | | | | | | |
| 140 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 150 | Identify as per dwg & Stock Location <u>45</u> | 0.00 | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |

EP 10/07/05 (87)

counts
(87)

10-7-7 87 *SP*

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: D3278-3 PAR #: _____ Fault Category: Small Pcs NCR: Yes No DQA: _____ Date: 10-07-05
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: _____ Date: 10-07-08

| NCR: <u>60081</u> | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|-------------------|------------|--|-----------------------------|---|---------------------------------------|-----------------------------|-----------------------|---------------------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| <u>10/07/05</u> | <u>130</u> | <u>1 part moved down and hit side of the hole, while c'sinking. no process-small parts.</u> | <u>[Signature]</u> | <u>Scrap & destroy no replace</u> | <u>[Signature]</u> <u>10/07/05</u> | <u>S</u> <u>10/07/06</u> | <u>[Signature]</u> | <u>[Signature]</u> <u>10/07/05</u> |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 60081

June 24, 2010 9:08:43 AM



Page 3

Item ID: D3278-3

Accept



Setup Start



Revision ID:

Item Name: Spacer

Stop



Start Date: 6/24/10 Start Qty: 40.00



Cust Item ID:

Required Date: 6/28/10 Req'd Qty: 40.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

100708

MF

10-7-7

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|--|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

June 24, 2010 9:08:41 AM

Page 1

Work Order ID: 60081

Parent Item: D3278-3

Parent Item Name: Spacer



Start Date: 6/24/10

Required Date: 6/28/10

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A 04.04.19 New issue KJ/JLM
IPP B 07.09.06 Rev C dwg EC Verified by: JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

MDELRINS0.125

Purchased

No

110

sf

6.0000

0.0344

1.448421



B 10-6-24

Black Delrin Sheet .125

Location

Loc Qty

Loc Code

MAT

6

101657

1

104803

5

104803

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|--|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

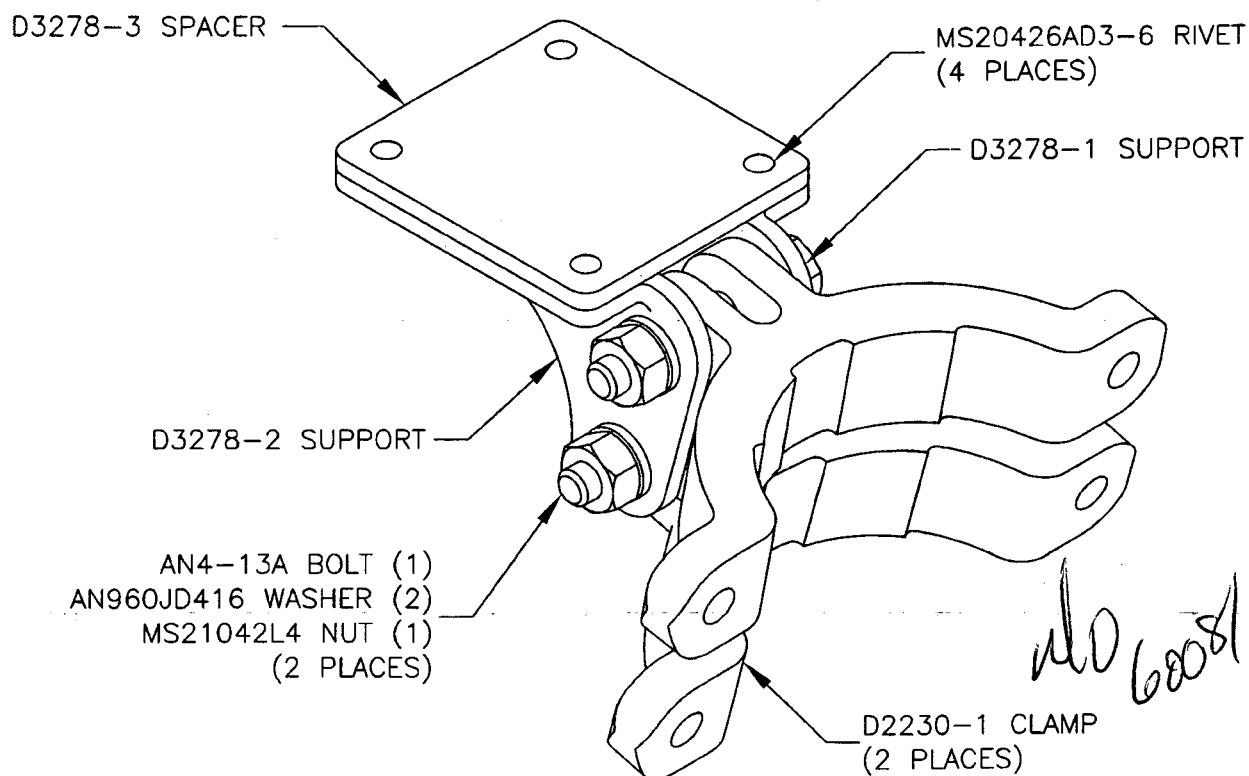
NOTE: Date & initial all entries



| | | | |
|---------------------|-----------------------|---|------------------------|
| DESIGN <i>90</i> | DRAWN BY <i>BC</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>B</i> | APPROVED <i>H</i> | DRAWING NO. D3278 | REV. C SHEET 1 OF 3 |
| DATE 07.07.24 | | TITLE SUPPORT ASSEMBLY | SCALE NTS |
| A | 04.03.03 | NEW ISSUE | |
| B | 05.03.31 | CHANGE DIM/TOL TO ENSURE FIT | |
| C | 07.07.24 | CHANGED RIVETS PER PAR #185 | |

RELEASED
07 08 08

D3278-041 SUPPORT ASSEMBLY



| Qty | Part Number | Description |
|-----|--------------|------------------|
| X | D3278-041 | SUPPORT ASSEMBLY |
| 2 | D2230-1 | CLAMP |
| 1 | D3278-1 | SUPPORT |
| 1 | D3278-2 | SUPPORT |
| 1 | D3278-3 | SPACER |
| 2 | AN4-13A | BOLT |
| 4 | AN960JD416 | WASHER |
| 4 | MS20426AD3-6 | RIVET |
| 2 | MS21042L4 | NUT |

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

| W/O: | | | WORK ORDER CHANGES | | | | | |
|------|------|--|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

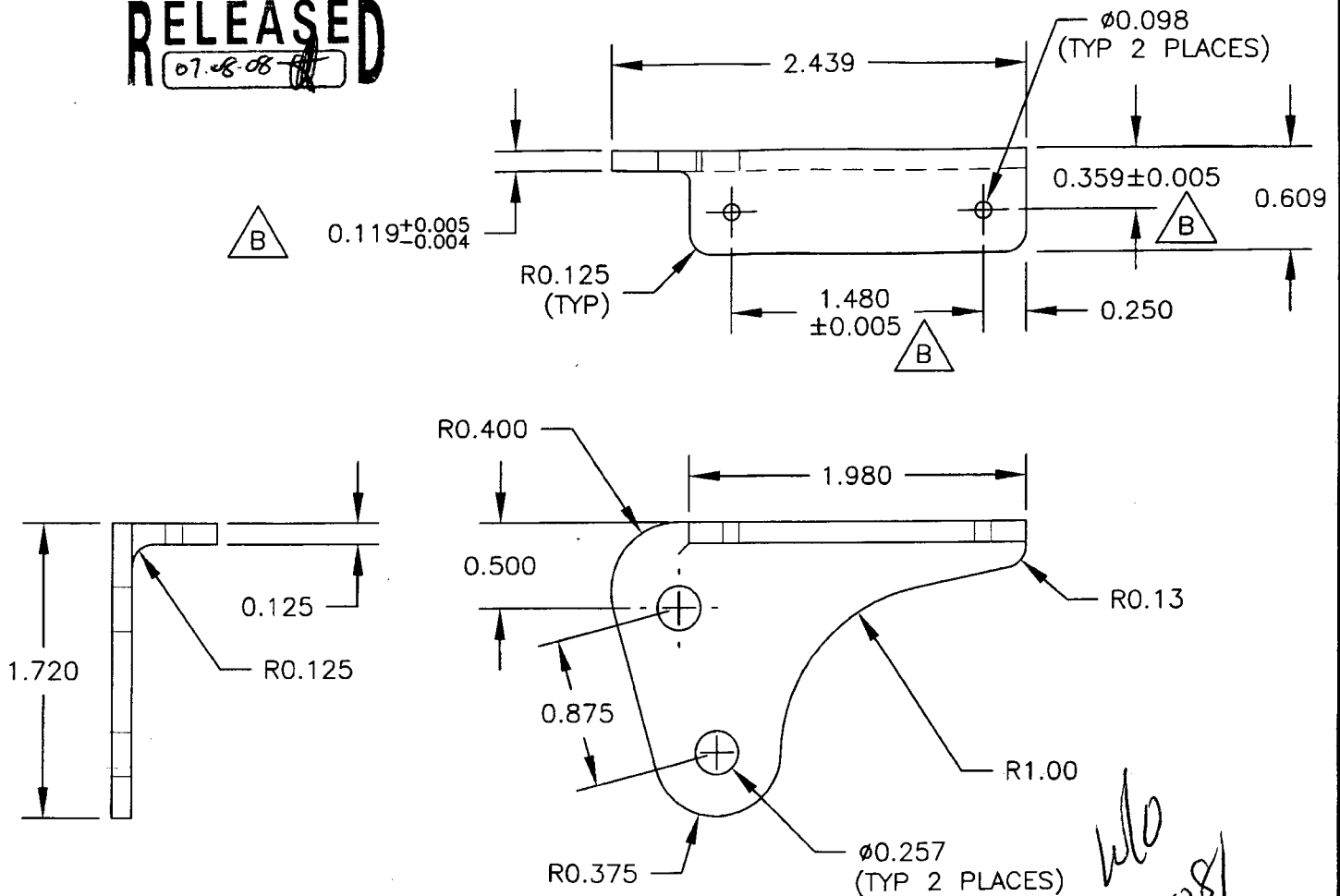
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | |
|------|------|--------------------------------|----------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

DART

| | | | |
|---------------------|---------------------------|---|------------------------|
| DESIGN <i>GP</i> | DRAWN BY <i>BC</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>B</i> | APPROVED <i>H</i> | DRAWING NO. D3278 | REV. C SHEET 2 OF 3 |
| DATE 07.07.24 | TITLE SUPPORT ASSEMBLY | | SCALE 1:1 |

RELEASED
07.08.08**D3278-1 SUPPORT (SHOWN)****D3278-2 SUPPORT (OPPOSITE)**

- 1) MACHINE PER DWG FILE "D3278-1.SLDPRT"
- 2) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
PER AMS-QQ-A-200/8 (OR AMS 4160)
(REF. DART SPEC. M6061T6B)
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

| W/O: | | | WORK ORDER CHANGES | | | | | |
|------|------|--|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

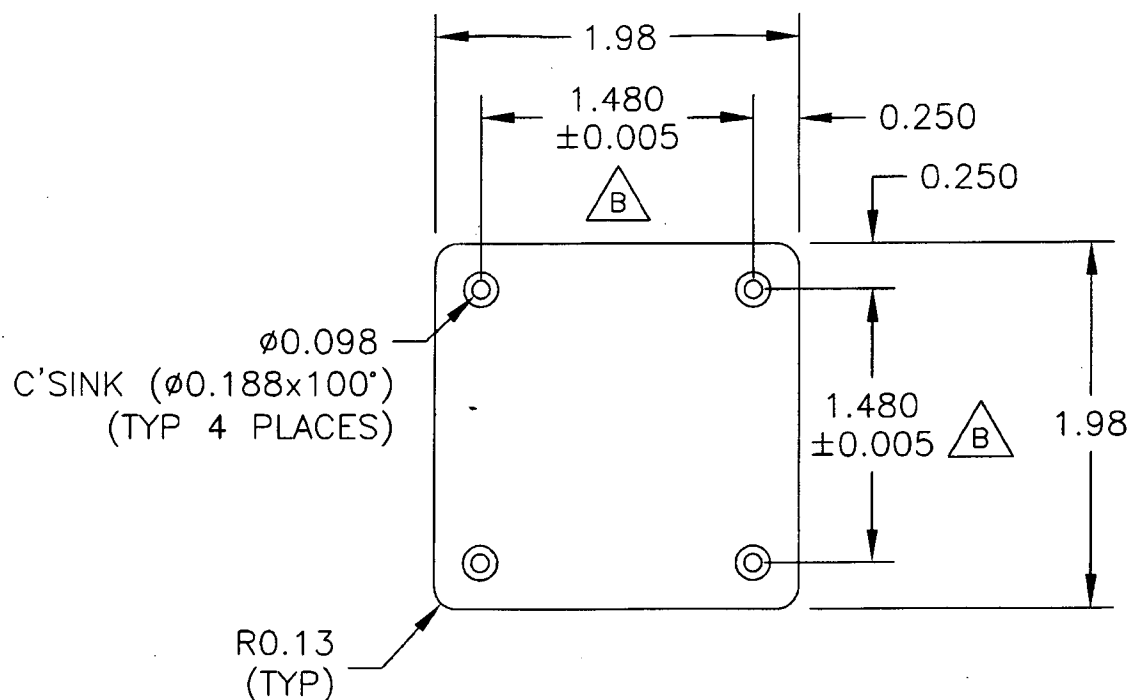
| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries



| | | | |
|----------------------|-----------------------|---|------------------------|
| DESIGN <i>GP</i> | DRAWN BY <i>SC</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>JS</i> | APPROVED <i>JS</i> | DRAWING NO. D3278 | REV. C SHEET 3 OF 3 |
| DATE 07.07.24 | | TITLE SUPPORT ASSEMBLY | SCALE 1:1 |

RELEASED
07.08.08



D3278-3 SPACER

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
(REF: DART SPEC. M-DELRIN-B0.125x2.000) OR
DELRIN II 150E OR ACETRON GP ACETAL
(REF. DART SPEC. M-DELRIN-S.125)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

| W/O: | | | WORK ORDER CHANGES | | | | | |
|------|------|--|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| W/O: | | | WORK ORDER CHANGES | | | | | |
|------|------|--|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|--|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTE: Date & initial all entries